25/9/23 Object Oriented programming language C++ FN

Kevin Allen J
192224272

```
#include <stdio.h>
int main ()
{
    ~~int A, B, C, D, e;~~
    ~~Printf ("enter the Marks for subject 1)~~
    int marks [10];
    for (int i = 0; i<=5; i++)
        {
            printf ("enter the marks:");
            scanf ("%d", marks[i]);
            if (marks [i] > 80)
                {
                    printf ("honours"); }
            else if (marks [i]>70 && marks[i]<80)
                { printf ("first class"); }
            else if (marks [i]<70 && marks [i]>50)
                { printf ("second class"); }
```

```
else
    {
      printf(" FAIL");
    }
}

Return 0;
}
```

Program 2:

```
#include <stdio.h>
int main ()
{ int A, B, C, D, E;

  Printf ("Enter the Tamil mark:");
  Scanf ("%d", &A);
  Printf ("Enter the english mark:");
  Scanf ("%d", &B);
  Printf (" Enter the maths mark:");
  Scanf ("%d", &c);
  printf ("Enter the science mark:");
  Scanf ("%d"), &d);
```

```
Printf ("Enter marks for Social Science : ");
Scanf ("%d", &E);
int Sum ; Avg;

Sum = A+B+C+D+E;
Avg = Sum/5
if (Avg>80)
  { printf ("honours"); }
elseif (Avg <80 && Avg > 70)
  {printf ("first class"); }
elseif (Avg<70 && Avg>50)
  {printf ("second class"); }
else
  {printf ("FAIL"); }

Return 0
}
```

Statements

C	C++
input: Scanf()	input: Cin
output: printf()	Output: Cout
Syntax: Scanf (const char, &variable); example: Scanf ("%d", &A);	Syntax: Cin >> Variable; example ~~Cout <<~~ Cin>> A;
Syntax: Printf (" Statement"); example: printf ("Hello");	Syntax Cout << "Statement"; example Cout << "Hello";

if else statement
Syntax
if (condition)
{ block 1;
}
else
{ block 2;
}
	if else statement
	Syntax
	if (condition)
	{ block 1;
	}
	else
	{ block 2;
	}

example:

```
if (A > B)
  {
    printf ("A is greater");
  }
else
  {
    printf ("B is greater");
  }
```

example

```
if (A>B)
  {
    cout << "A is greater";
  }
else
  {
    cout << "B is greater";
```

iterative Statements:

* while
* For

Syntax

```
while (condition)
  { block 1; }
```

example;

```
while (A>B)
  {
    A=A+1; }
```

iteratitive statements

* while
* For

Syntax

```
while (condition)
  {
    \\ statement
  }
```

example

```
while (A>B)
  { A=A+1; }
```

Syntax:

```
For (initialization;
     condition; iteration)
```

example

```
For (i=0; i>=A; i++)
  { A=A+1
```

syntax

```
For (initialization; condition;
     increment)
```

example

```
For (i=0; i>=A; i++)
  { A=A+1
  }
```

Break Statement

Syntax

```
break;
```

example

```
while(i>0)
{
  if(i>5)
    {break;};
  i++;
}
```

Break Statement

Syntax

```
break;
```

example

```
while (i>0)
{
  break;
}
```

Nested if

Syntax

```
if (condition)
{
  if (condition)
  {
    block;
  }
}
```

example

```
if (A>B)
{ if (A>C)
  {
    printf
      ("A is greater")
  }
}
```

Nested if

Syntax

```
if (condition)
{
  if (condition)
  {
    (block);
  }
}
```

example

```
if (A>B)
{ if (A>C)
  {
    Cout<<"A";
  }
}
```

Expression Statement

Syntax:

int n = ;

example

int n = ;

Compound Statement

{

Statements contained between curly braces

}

example

```
int main()
{
  int A,B,C;
}
```

Keyword C

* int
* char
* double
* float
* const
* continue
* for
* if
* do
* while
* else
* long
* Struct
* return
* Void
* Size of
* goto,
* enum
* typedef

Expression Statement

Syntax:

int n = ;

example

int n = ;

Compound Statement

{

Statement contained between curly braces

}

example

```
int main
{
  int A,B,C
}.
```

Keywords C++

* int
* char
* float
* double
* if
* else
* else if
* for
* while
* do
* goto
* return
* const
* continue
* break
* Sizeof
* void
* delete
* class
* friend
* Auto
* try
* Napo
* extern
* default

1). Adding two numbers

```
# include <iostream>
Using namespace std;
int main()
{
    int a, b, c;
    Cout << " Enter number 1";
    Cin >> a;
    Cout << " Enter number 2";
    Cin >> b;
    c = a+b;
    Cout << " Sum = " << c;
    Return 0;
}
```

2). Swap 2 numbers:

```
# include <iostream>
Using namespace std;
int main()
{ int a, b, temp;
    a = 10;
    b = 20;
```

```
cout << "A= " << a;
cout << "b= " << b;
cout << " after swapping ";
temp = A;
  A = B;
  B = temp;
cout << "A= " << a;
cout << "b= " << b;
Return 0;
```

3). Largest of three numbers

```
# include <iostream>
using namespace std;
int main()
{
  int A=10; B=20; c=30;
  if (A>=B && A>=c)
   {
     cout << " A is greater ";
   }
  else if (B>=A && B>=c)
   {
     cout << "B is greater "; }
  else
   { cout << " C is greater "; }
Return 0;
```

4). Sum of n natural numbers

```
# include <iostream>
Using namespace std;
int main ()
{
  int n, Sum = 0;
  Cout << "Enter the number N: "
  Cin >> n;
  for (int i = 1; i <= n; i++)
  {
    Sum += i;
  }
  Cout << endl << "Sum = " << Sum;
  Return 0;
```

5). odd or even

```
# include <iostream>
Using namespace std;
int main ()
{
  int A;
```

```
Cout << " enter a number! " ;
Cin >>A;
if (A%.2==0)
  {
    Cout<<"even";
  }
else
    {
      Cout <<"odd";
    }

return 0;
}
```

25/9/23 After Noon

6). factorial.

```
#include <iostream>
Using namespace std;
int main()
{ int x, fact=1;
  Cout << " Enter the number! " ;
  Cin >>x ;
```

```
For (int i=0; i<=x; i++)
  {
    fact=fact*i
  }
Cout<<"factorial = "<<fact;
Return 0;
}
```

7). Fibonacci Series

```
# include <iostream>
using namespace std;
int main ()
{ int x, n=0, n1=0, n2=1, n3;
  while (x>n)
  {
    Cout <<"n1" << "/t";
    n3 = n1+n2;
    n1 = n2;
    n2 = n3;
    n++;
  }
  return 0; }
```

8). Reverse a number

```
#include <iostream>
using namespace std;
int main ()
{ int tem=0, x, rem;
  cout << " enter the number";
  cin >> x;
  while (x)
  {  rem = x % 10;
     tem = (tem* 10) + rem;
     x = x / 10;
  }

  cout >> " reversed number =" << temp;
  return 0;
```

9). Multiply two numbers.

```
#include <iostream>
using namespace std;
int main ()
{ int x = 10, y = 10
  cout << x*y;
}
```

10). prime number or not

```
#include <iostream>
using namespace std;
int prime (int x)
{
    if (x>1)
    {
        for (int i=1; i<x; i++)
        {
            if (x%i==0)
            {
                return 0;
            }
        }
        return 1;
    }
    else
    {
        return 0;
    }
}
int main ()
```

```
{ int x, y;
  cout << " Enter the number";
  cin>>x;
  y = prime (x)
  if (y)
   {
    cout << x << " is a prime number";
   }
  else
   {
    cout << x << " is Not a prime
                                  number";
   }
  return 0;
}
```

11). Function to find length of string

```
# include <iostream>
using namespace std;
int length (string name)
{
    int sum=0;
    for (int i=0; name [i] != '\0'; i++)
    {
        sum = sum+i;
    }
    return sum;
}
int main ()
{
    string name;
    Cout << " Enter the name :";
    getline (cin, name);
    int x = length (name);
    Cout <<"length" << x;
    return 0; }
```

26/9/2023

FN

1). Arithmetic Operations FN (Time : 9:10) AM

Enter Value A : 2

Enter Value B : 1

Addition = 3

Subtraction = 1

multiplication = 2

division = 2

Modulo = 0

2). Average (Time : 9.15 AM) FN

Enter Value A : 2

Enter Value B : 4

Enter Value C : 3

Average = 3

3). Compare (Time 9:25 AM) FN

Enter Value A : 12

Enter Value B : 12

EQUAL

4). odd or even (Time : 9:35) AM

FN

Enter a number = 17

ODD

5). Positive or negative (Time : 9.43 Am)

FN

Enter a number : 89

POSITIVE

6). Factorial function (Time : 10:00 Am)

FN

Enter the number : 5

Factorial = 120

7). Reverse a string (Time : 10:25 Am)

FN

Enter the String = Kevin Allen

Reverse string = nellA nivek